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R E M A R K S

The Examiner is respectfully requested to enter this Reply After Final in that it raises no new issues. Alternatively, the Examiner is respectfully requested to enter this Reply After Final in that it places the application in better form for Appeal.

Status of the Claims

Claims 2-37, 39 and 40 are pending in this application. No claims have been cancelled. Claim 40 has been added. No claims have been amended. New claim 40 is supported by claim 39 and page 4, third paragraph to page 6, first paragraph in the specification. No new matter has been added by new claim 40.

Information Disclosure Statement

Applicants respectfully request that the Examiner initial the PTO-1449 form submitted on September 11, 2000 to acknowledge consideration of all references cited therein and return a copy to the undersigned.

Rejections under 35 USC 103(a)

The Examiner rejects claims 2-37 and 39 as obvious over Shartle et al. USP 5,230,866 (Shartle '866), Columbus USP 4,426,451 (Columbus '451), Subramanian USP 5,223,219 (Subramanian '219) or

Cottingham USP 5,948,673 (Cottingham '673). Applicants traverse the rejection and respectfully request the withdrawal thereof.

Applicants submit that the present invention is patentable over the cited references. The present invention is directed to a sample support, comprising at least one sample receiving chamber for a sample liquid, a distributor channel for sample liquid, connected to said at least one sample receiving chamber, with at least one such distributor channel extending from each sample receiving chamber, at least one reaction chamber comprising a cavity which is delimited by surfaces and is entered by an inflow channel branched off said at least one distributor channel, and a venting opening for each reaction chamber, each distributor channel and each inflow channel being dimensioned to have the liquid transport through the distributor and inflow channels effected by capillary forces; wherein, in each reaction chamber, said surfaces in the entrance region of the inflow channel, which delimit the cavity, are arranged so that the sample liquid flows from the inflow channel into the reaction chamber by capillary force.

The present invention is arranged so that the sample liquid moves through the channels by capillary force only. No external ~~pressure or object is used to create the capillary force.~~ The arrangement of the surfaces and channels alone enables the capillary force.

Shartle '866 and Columbus '451

The Examiner states that Shartle '866 and Columbus disclose capillary channels connecting various chambers. The Examiner apparently concedes that neither Shartle '866 nor Columbus discloses an apparatus that functions by only capillary force.

Applicants submit that Shartle '866 and Columbus fail to disclose or suggest all the elements of the present invention including a sample receiving chamber, a specific reaction chamber with the recited configuration and specific channels. Neither reference discloses or suggests a reaction chamber where the fluid sample is able to pass through the reaction chambers by capillary action alone without an outside force, such as pressure.

Applicants rebut the Examiner's statement that the means plus function language should not be read into the claimed invention. Applicants claim an apparatus that has a particular configuration that allows for the liquid to flow by capillary force. The configuration of the surfaces and capillaries is a patentable feature that should be given weight. The Examiner is apparently misinterpreting this feature as an intended use limitation. Applicants respectfully disagree with the Examiner's interpretation of the claimed invention. ~~Alternatively, Applicants amend the~~ claims to insert new claim 40, which does not have means plus function language.

As Applicants have demonstrated that Shartle '866 and Columbus '451 fail to disclose or suggest all the limitation of the presently claimed invention, Applicants respectfully request that the rejection be withdrawn.

Subramanian '219

The Examiner states that Subramanian discloses channels that have "continuous capillarity such that the sample is drawn into the stack." Applicants respectfully disagree with the Examiner's statement that Subramanian '219 discloses a chamber wherein the fluid moves through channels by capillary action.

Applicants submit that Subramanian '219 clearly discloses that in each chamber a porous element is inserted to provide for capillary forces. Please see column 6, line 15, which states that the pores are saturated. As such, the apparatus of Subramanian '219 is not arranged so that the fluid flows through channels by the capillary force as a result of the arrangement of the surfaces and channels. As Applicants have demonstrated that Subramanian '219 fails to disclose or suggest all the limitation of the presently claimed invention, Applicants respectfully request that the rejection be withdrawn.

Cottingham '673

The Examiner admits that Cottingham '673 discloses an apparatus wherein the fluid flows by capillary force and by gravity. The Examiner further states that the present invention recites open language in the preamble.

Applicants submit that the present invention clearly recites that in the reaction chamber, "said surfaces . . . are arranged so that the sample liquid flows . . . by capillary force." This language does not include such forms as gravity. This limitation is limited to only capillary force. As such, Applicants respectfully disagree with the Examiner's statement regarding open language.

Applicants further submit that since Cottingham '673 fails to disclose or suggest an apparatus as in the present invention that is arranged so that the fluid passes through the chamber by capillary forces alone, the rejection over Cottingham '673 should be withdrawn.

Conclusion

As Applicants have addressed and overcome all rejections in the Office Action, ~~Applicants respectfully request that the rejections~~
be withdrawn and that the claims be allowed.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petition for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$55.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Kecia Reynolds (Reg. No. 47,021) at the telephone number of the undersigned below.

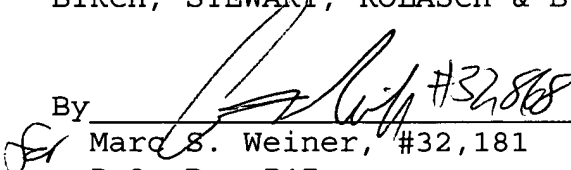
Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

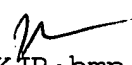
By

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MSW/KJR:bmp
0179-0164P

Attachment: Version with Markings to Show Changes Made



Appl. No.09/623,910

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 40 has been added.

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